

IN THE CLAIMS:

Claims 1-33 (cancelled).

Claim 34 (previously added): An isolated polynucleotide comprising:

(a) a nucleotide sequence encoding a polypeptide having 3-dehydroquinate synthase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:6 have at least 80% identity based on the Clustal alignment method, or

(b) the complement of the nucleotide sequence.

Claim 35 (previously added): The polynucleotide of claim 34, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:6 have at least 90% identity based on the Clustal alignment method.

Claim 36 (previously added): The polynucleotide of claim 34, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:6 have at least 95% identity based on the Clustal alignment method.

Claim 37 (previously added): The polynucleotide of claim 34, wherein the nucleotide sequence comprises the nucleotide sequence of SEQ ID NO:5.

Claim 38 (previously added): The polynucleotide of claim 34, wherein the amino acid sequence of the polypeptide comprises the amino acid sequence of SEQ ID NO:6.

Claim 39 (previously added): A vector comprising the polynucleotide of claim 34.

Claim 40 (previously added): A chimeric gene comprising the polynucleotide of claim 34 operably linked to a regulatory sequence.

Claim 41 (previously added): A method for transforming a cell comprising transforming a cell with the polynucleotide of claim 34.

Claim 42 (previously added): A cell comprising the chimeric gene of claim 40.

Claims 43-45 (cancelled).

Claim 46 (previously added): A method for isolating a polypeptide encoded by the polynucleotide of claim 34 comprising isolating the polypeptide from a cell containing a chimeric gene comprising the polynucleotide operably linked to a regulatory sequence.